

REMARKS

A. Objections to Claims

In the Office Action of May 1, 2006, claims 5, 6, 11, 14, 25 and 33 were objected to because of various informalities. In particular, claims 5, 11 and 14 were objected to because the phrase “such that in said measuring direction alternating ones of said first and second sets of magnetic elements are arranged injected” was awkward. Applicants disagree. The phrase appears to be clear in meaning and so the objection is improper and should be withdrawn. If this objection is repeated in the next Office Action, Applicants request that the Examiner provide alternative language to overcome his objections.

Claims 6 and 33 were objected to because the phrase “said first and second sets of magnetic elements are magnetized along an axis of symmetry of said scale” was unclear in meaning. Applicants disagree. The phrase is clear in meaning and so the objection is improper and should be withdrawn. It is noted that the objection appears to be based on the assertion that an embodiment described in Applicants’ specification limits the meaning of the phrase. This incorporation of specific embodiments into the claim is improper. *E.I. duPont & Co. v. Phillips Petroleum Co.*, 849 F.2d 1430, 7 USPQ2d 1129 (Fed. Cir. 1988).

Claim 25 was objected to for not further limiting the invention. In view of the cancellation of claim 25, the objection has been rendered moot and should be withdrawn.

B. 35 U.S.C. § 112, Second Paragraph

Claims 5, 11, 14 and 34 were rejected under 35 U.S.C. § 112, second paragraph, for being indefinite. In particular, claims 5, 11, 14 and 34 were rejected because the phrase “wherein said first set of magnetic elements are arranged on a first set of tracks” was unclear in meaning. The meaning of “on” was identified to be the main issue. Claims 5, 11, 14 and 34

have been amended so that “on” has been replaced by “within.” Since the meaning of “within” is clear, the rejection has been overcome and should be withdrawn.

Claim 34 was also rejected because the difference between the recited tracks and the rings of claim 32 was unclear. Applicants traverse the rejection. Claim 32 was previously canceled and so the rejection is moot and should be withdrawn.

C. 35 U.S.C. § 102

1. Claims 2, 3, 5-7, 10 and 16-20

Claims 2, 3, 5-7, 10 and 16-20 were rejected under 35 U.S.C. § 102(b) as being anticipated by Spies. Applicants traverse the rejection. Claim 5, as amended, recites that the first set of magnetic elements are within a first set of tracks that are spaced apart from one another. In other words, there are two or more tracks spaced from one another, wherein each track contains therein one or more of the first set of magnetic elements. In order to clarify the nature of the recited tracks, claim 5 has been amended to recite that “each of said first set of tracks are bounded only by two parallel walls of adjacent ones of said first non-magnetizable supports.” Thus, the recesses 67 of Spies do not anticipate the tracks since the recesses are defined by three walls. The recesses 77 and 78 of Spies also do not anticipate the tracks since there are no non-magnetizable supports in the form of concentric rings between the recesses.

In addition, each of the first set of magnetic elements is constrained to be arranged laterally next to the first non-magnetizable support as recited in claim 5. In contrast, Spies shows in Fig. 5 at most one track of magnetic elements that is arranged laterally next to each of the base bodies 60, 70. Those magnetic elements are arranged on the outer circumferences of the base bodies. While there are magnetic elements arranged interiorly of each base body, 60, 70, those magnetic elements are arranged on the interior surface of the base body. This is confirmed by

examining the top base body 70 shown in Fig. 5. In particular, the top surface of the base body 70 overlies top surfaces of the interior magnetic elements and so the interior magnetic elements are not laterally arranged next to the base body 70. Since Spies does not disclose two or more tracks with magnetic elements laterally arranged in the manner recited in claim 5, the rejection is improper and should be withdrawn.

Besides not being anticipated by Spies, claim 5 is not rendered obvious by Spies since there is no suggestion to alter Spies so that either 1) its interior magnet elements for a base body are arranged laterally to the base body or 2) it uses tracks in the manner recited in the claim. In the case of base body 70, such an alteration would require forming openings in the top surface of base body 70 and then placing the interior magnetic elements in the openings. Furthermore, there is no disclosure in Spies how such interior magnetic elements would be attached to the base body. Accordingly, claim 5 and its dependent claims are patentable over Spies.

2. Claims 11-13 and 21-25

Claims 11-13 and 21-25 were rejected under 35 U.S.C. § 102(b) as being anticipated by Spies. Claim 25 has been canceled rendering its rejection moot. Regarding claim 11, it has been amended to clarify that 1) the first set of magnetic elements are within a first set of tracks that are spaced apart from one another and 2) “each of said first set of tracks are bounded only by two parallel walls of adjacent ones of said first non-magnetizable supports.” For reasons similar to those given above in Section C.1 with respect to claim 5, claim 11, as amended, is not anticipated by Spies. Accordingly, the rejection has been overcome and should be withdrawn.

Besides not being anticipated by Spies, claim 11 is not rendered obvious by Spies since there is no suggestion to alter Spies so that either 1) its interior magnet elements for a base body are arranged laterally to the base body or 2) it uses tracks in the manner recited in the claim.

3. Claims 14, 15 and 26-30

Claims 14, 15 and 26-30 were rejected under 35 U.S.C. § 102(b) as being anticipated by Spies. Claim 14 has been amended to clarify that 1) the first set of magnetic elements are within a first set of tracks that are spaced apart from one another and 2) “each of said first set of tracks are bounded only by two parallel walls of adjacent ones of said first non-magnetizable supports.” For reasons similar to those given above in Section C.1 with respect to claim 5, claim 14, as amended, is not anticipated by Spies. Accordingly, the rejection has been overcome and should be withdrawn.

Besides not being anticipated by Spies, claim 14 is not rendered obvious by Spies since there is no suggestion to alter Spies so that either 1) its interior magnet elements for a base body are arranged laterally to the base body or 2) it uses tracks in the manner recited in the claim.

4. Claims 31, 33 and 34

Claims 31, 33 and 34 were rejected under 35 U.S.C. § 102(b) as being anticipated by Spies. Applicants traverse the rejection. Claim 31 has been amended to clarify that the first set of magnetic elements and the second set of magnetic elements are arranged only laterally next to the first and second non-magnetizable supports, respectively. Furthermore, claim 31 recites that the first set of magnetic elements are arranged to define a ring and the second set of magnetic elements are arranged to define a ring that is offset to and concentric with the ring defined by the first set of magnetic elements. As mentioned above in Section C.1, only the outer magnetic elements of the base bodies 60, 70 could be considered to be only laterally arranged with their respective base bodies. The interior magnetic elements are either arranged within a recess or on the surface of the non-magnetizable supports. However, when base bodies 60 and 70 are attached to one another, the outer magnetic elements of each base body define rings that overlap

one another and so are not offset from one another as required by claim 31. Accordingly, the rejection is overcome and should be withdrawn.

Besides not being anticipated by Spies, claim 31 is not rendered obvious by Spies since there is no suggestion to alter Spies so that its interior magnet elements for a based body are arranged only laterally to the base body. Accordingly, claim 31 and its dependent claims are patentable over Spies.

5. Claim 35

Claim 35 was rejected under 35 U.S.C. § 102(b) as being anticipated by Spies. Claim 35 has been amended to clarify that the first set of magnetic elements and the second set of magnetic elements are arranged only laterally next to the first and second non-magnetizable supports, respectively. Furthermore, claim 35 recites that the first set of magnetic elements are arranged to define a ring and the second set of magnetic elements are arranged to define a ring that is offset to and concentric with the ring defined by the first set of magnetic elements. For reasons similar to those given above in Section C.4 with respect to claim 31, claim 35, as amended, is not anticipated by Spies. Accordingly, the rejection has been overcome and should be withdrawn.

Besides not being anticipated by Spies, claim 35 is not rendered obvious by Spies since there is no suggestion to alter Spies so that its interior magnet elements for a based body are arranged only laterally to the base body.

6. Claims 36-42

Claims 36-42 was rejected under 35 U.S.C. § 102(b) as being anticipated by Spies. Claim 36 has been amended to clarify that the first set of magnetic elements and the second set of magnetic elements are arranged only laterally next to the first and second non-magnetizable

supports, respectively. Furthermore, claim 36 recites that the first set of magnetic elements are arranged to define a ring and the second set of magnetic elements are arranged to define a ring that is offset to and concentric with the ring defined by the first set of magnetic elements. For reasons similar to those given above in Section C.4 with respect to claim 31, claim 36, as amended, is not anticipated by Spies. Accordingly, the rejection has been overcome and should be withdrawn.

Besides not being anticipated by Spies, claim 36 is not rendered obvious by Spies since there is no suggestion to alter Spies so that its interior magnet elements for a based body are arranged only laterally to the base body.

D. 35 U.S.C. § 103

1. Spies and Schwabe

Claim 8 was rejected under 35 U.S.C § 103 as being obvious in view of Spies and Schwabe. Claim 8 depends indirectly on claim 5. Schwabe does not solve the deficiencies of Spies in that Schwabe does not suggest altering Spies so that either 1) its interior magnet elements for a base body are arranged laterally to the base body or 2) it uses tracks in the manner recited in claim 5. Without such suggestion, the rejection should be withdrawn.

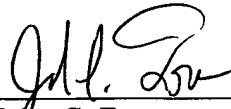
2. Spies and Kitaori

Claim 9 was rejected under 35 U.S.C § 103 as being obvious in view of Spies and Kitaori. Claim 9 depends directly on claim 5. Kitaori does not solve the deficiencies of Spies in that Kitaori does not suggest altering Spies so that either 1) its interior magnet elements for a base body are arranged laterally to the base body or 2) it uses tracks in the manner recited in claim 5. Without such suggestion, the rejection should be withdrawn.

CONCLUSION

In view of the arguments above, Applicants respectfully submit that all of the pending claims 2, 3, 5-24, 26-31 and 33-42 are in condition for allowance and seek an early allowance thereof. If for any reason, the Examiner is unable to allow the application in the next Office Action and believes that an interview would be helpful to resolve any remaining issues, he is respectfully requested to contact the undersigned attorneys at (312) 321-4200.

Respectfully submitted,



John C. Freeman

Registration No. 34,483

Attorney for Applicants

BRINKS HOFER
GILSON & LIONE
P.O. Box 10395
Chicago, Illinois 60610
(312) 321-4200

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